

**FINDING OF NO SIGNIFICANT IMPACT
AND FINDING OF NO PRACTICABLE ALTERNATIVE
KC-46A DEPOT MAINTENANCE ACTIVATION
TINKER AIR FORCE BASE (AFB), OKLAHOMA**

Pursuant to the Council on Environmental Quality regulation for implementing the procedural provisions of the National Environmental Policy Act (NEPA), Title 40 of the Code of Federal Regulations (CFR) §§ 1500-1508; Air Force Environmental Impact Analysis Process (EIAP) regulations 32 CFR § 989 and Department of Defense Directive 6050.1, the Air Force has prepared an Environmental Assessment (EA) to identify and assess the potential impacts on the natural and human environment associated with the KC-46A depot maintenance activation at Tinker AFB, Oklahoma.

Purpose of and Need for Proposed Action (EA § 1.3, pages 1-2 to 1-3): The KC-135 Stratotanker is an aerial refueling military aircraft that provides support to Air Force bomber, fighter, cargo and reconnaissance forces, as well as Navy, Marine Corps and allied nation aircraft (USAF 2011a). The Air Force maintains a fleet of 530 KC-135 aircraft (USAF 2007a). Currently Oklahoma City Air Logistics Complex (OC-ALC) services approximately 60 KC-135 aircraft in an average year. Due to the age of the aircraft, increases in necessary maintenance and the cost/difficulty in obtaining replacement parts, the Air Force has challenges in maintaining the KC-135 fleet (USAF 2005). Additionally this fleet has been required to fly double its planned yearly flying hours in order to meet airborne refueling requirements, which have resulted in higher than forecasted usage and sustainment costs (House Armed Services Committee 2006). In 2011, the Air Force selected the KC-46A aircraft to replace the aging KC-135 fleet and established Tinker AFB to be the installation where depot maintenance activities would occur. The purpose of this action is to establish the required facilities and logistic support needed to perform depot maintenance operations for the new refueling aircraft. The need for this action arises because facilities are not available at Tinker AFB to support the maintenance of the KC-46A fleet.

Alternatives Eliminated from Further Consideration (EA § 2.3, pages 2-2 to 2-3): Five sites were initially considered for locating KC-46A depot maintenance facilities at Tinker AFB: (1) the Burlington Northern Santa Fe (BNSF) Rail Yard, (2) Defense Logistics Agency (DLA) Infill, (3) the Maintenance Repair and Overhaul Technology Center (MROTC), (4) Crosswind Runway and (5) Reutilizing the existing KC-135 facilities. Alternatives eliminated from further analysis included the MROTC, Crosswind Runway and reutilizing the existing KC-135 facilities. The MROTC and Crosswind Runway locations did not meet the purpose and need mainly because of the negative impacts the KC-46A depot maintenance activities would have on current operations conducted there. In addition, the maintenance docks could not be physically connected to the runway nor was either the MROTC or the Crosswind locations within close proximity to the existing taxiways/ramp area or Building 9001/DLA facility, which would provide major depot maintenance support to the new aircraft. Reutilizing the existing KC-135 depot maintenance facilities was also not an option. First, the KC-46A is physically larger than the KC-135 in all dimensions. Significant dismantling of the KC-46A (i.e., removal of wings and tails) would be required in order to fit within the existing KC-135 aircraft bays. This would result in maintenance schedule delays. Secondly, Tinker AFB will be required to continue performing

maintenance activities on the KC-135, since a portion of this aircraft fleet will remain within the Air Force inventory. Therefore, only the BNSF Rail Yard and DLA Infill were carried forward for further environmental analysis.

Description of the Preferred Alternative (EA § 2.4, pages 2-5 to 2-7): Under the Preferred Alternative, KC-46A maintenance operations would be sited at the BNSF Rail Yard located south of Tinker AFB. Although this property is off-base, it is just north of Building 9001 and is immediately adjacent to Tinker AFB property, within close proximity to the runway. Required facilities include 14 aircraft bays, taxiways, aircraft parking positions, aircraft fuel/defueling positions, aircraft run up positions, a 10-meter engine test cell, a kitting facility, a software integration lab, warehouse space and support facilities such as central chiller plant, fire pump house and personal vehicle parking areas (EA Figure 2-1, page 2-8).

As part of this action, a portion of the rail lines would be removed to accommodate the new maintenance facilities. Midwest Blvd would be rerouted around the west side of the proposed site and portions of the road would be removed. Furthermore, various utility lines and small structures would be addressed as part of this project (USACE 2012) and a 1,200-foot taxiway would be constructed south of the Navy's ramp to connect the BNSF site to the Tinker runway.

The new depot maintenance mission would create a workload increase for Tinker AFB. An estimated 350 people would be required for the various construction and demolition (C&D) activities. At full depot maintenance capabilities, an estimated 1,700 personnel would be required to maintain the fleet. Approximately 50 percent of the required manpower would be reassigned personnel due to decreased workloads in other areas of the base; 35 percent would be reassigned due to budget cuts and the remaining 15 percent (approximately 255 persons) would be hired from outside the Oklahoma City area. An estimated 1.23 percent of the additional personnel necessary for depot maintenance of the KC-46A would be required in Fiscal Year 2016, with the remainder phasing in through Fiscal Year 2028.

The KC-46A fleet would consist of approximately 180 aircraft, with the first aircraft scheduled to arrive at Tinker AFB for depot maintenance beginning in 2018. Approximately 90 KC-46A aircraft per year could be serviced at full depot maintenance capabilities.

Description of Alternative 1 (EA § 2.5, pages 2-9 to 2-11): Alternative 1 would locate the KC-46A depot maintenance facilities on the DLA Infill, which is located on Tinker AFB property (EA Figure 2-2, page 2-12). Facility requirements would be the same as those described above under the Preferred Alternative.

This site currently houses the DLA warehouse campus, Base Civil Engineer maintenance yard and recreation vehicle storage lot. These functions would be relocated to other areas of the base and the existing structures demolished/removed. Additionally, a portion of the 507th parking area would be removed along with miscellaneous utility lines and small structures. During construction, the existing fire detention pond would be filled, all mature trees/vegetation would be cleared and the site graded/filled (~300,000 cubic feet of soil) to support construction.

Tinker AFB is proposing to relocate the demolished facilities and operations to an existing 150,000 square foot building located on the Tinker Aerospace Complex (TAC) facility. Relocation of existing Tinker AFB operations to TAC facilities was assessed in the 2008 Environmental Assessment for Tinker Aerospace Complex. A Finding of No Significant Impact was signed by Colonel Mark A Correll, 72nd Air Base Wing Commander, on 8 May 2008.

Description of the No-Action Alternative (EA § 2.6, page 2-13): Under this alternative depot maintenance operations for the KC-46A aircraft would not be performed at Tinker AFB. The Air Force would not be required to construct/demolish any facilities/infrastructure at Tinker AFB nor would any additional property acquisitions occur to accommodate the new mission. The No-Action Alternative is the baseline for the rest of the analyses and helps determine the level of impact the other alternatives would have on the environment.

SUMMARY OF ENVIRONMENTAL FINDINGS

Environmental analyses focused on the following areas: air space, noise, safety, air quality, land use, physical resources, water resources, biological resources, bird/wildlife-aircraft strike hazards (BASH), cultural resources, hazardous materials/waste, utilities/infrastructure, socioeconomics and environmental justice. Because bed down of the KC-46 depot maintenance is similar to other activities already conducted at Tinker AFB and existing airfield capacity can accommodate the minimal increase, there would be no impact to airspace (EA § 4.2.1, pages 4-2, 4-5). Analyses did not show any noise sensitive areas within the day-night average sound level (DNL) 65 decibels (dB) noise contour and there would be only a 2 dB increase in DNL for both the Preferred Alternative and Alternative 1; therefore, impacts to noise are minimal (EA § 4.2.2, page 4-9). There would be no impacts to aircraft/ground safety and BASH since the KC-46 operations would be similar to the KC-135, which had negligible mishap rates (EA §§ 4.2.3 and 4.2.9, pages 4-15 to 4-16 and 4-55). Approximately 240 acres would be changed from industrial/open space/undeveloped land to aircraft operations, which is permissible within a clear zone. Overall, there would be no significant impacts to land use compatibility for both alternatives (EA § 4.2.5, pages 4-24 to 4-29). There would be no impact to cultural resources with the Proposed Action. No historic properties are found within each alternative and there are no archaeological properties within Alternative 1. Two archaeological sites are present within the Preferred Alternative; however, they are not eligible for listing in the National Register of Historic Places (EA § 4.2.10, page 4-56). The amount of hazardous materials used/waste generated in maintenance operations of the KC-46A would be similar to what is currently used/generated in maintaining the KC-135 aircraft. The existing hazardous waste permits would need to be amended to include the new processes, but overall, there would be no impacts associated with implementation of either alternative (EA § 4.2.11, pages 4-57 to 4-60). There would be no impacts to utilities and infrastructure since there is sufficient capacity for the new depot maintenance activities (EA § 4.2.12, page 4-62 to 4-64). The increase in the Oklahoma City population under both alternatives represents a potential 0.1 percent. This would not affect the ability of public services, transportation or infrastructure to effectively support the community. Current housing and school capacities can accommodate the increase in population (EA § 4.2.13, pages 4-69 to 4-70). There would be no disproportionate and adverse impacts to children, minority or low-income populations since these groups are not found within/adjacent to either alternative (EA § 4.2.14, page 4-71). All other findings are summarized below.

Air Quality (EA § 4.2.4, pages 4-19 to 4-23): There would be temporary, localized emissions during KC-46A C&D activities associated with grading, excavating, filling and equipment operations, which would quickly dissipate away from the source. Once the aircraft arrive, there would be long-term air quality impacts due to the addition of stationary combustion sources at the boiler and chiller plants, flight emissions, engine testing and the increase in public owned vehicles. Combustion of fuel under both alternatives would result in emissions of CO, VOC, NO_x, SO₂, PM₁₀ and PM_{2.5} (EA Table 4-6, page 4-22). There would also be an increase in VOC emissions from solvent use during general cleaning/de-painting and fuel component testing. Total VOC emissions from KC-46A depot maintenance activities would be 144 tons per year. This would be a 0.091 percent increase to the overall Oklahoma County regional emissions, which would not be considered significant. The Proposed Action is located in an attainment area for all National Ambient Air Quality Standards under the Clean Air Act and conformity analysis is not required. Because Tinker is a major air source for NO_x, CO and VOCs, they currently operate under a Title V Permit as well as a Prevention of Significant Deterioration (PSD) permit. These air permits would be modified to reflect changes/additions to stationary air sources required for KC-46A depot maintenance.

Approximately 89,236 metric tons of greenhouse gases (GHG) would be released annually under both alternatives, which exceed the PSD GHG rule applicability threshold. Currently there are no acceptable methodologies for quantitatively relating amounts of GHG emissions to an associated amount of climate change; therefore, the Air Force calculates these emissions in order to compare each alternative. While there is a slight increase in GHG emission related to this project, these emissions are not expected to have a significant impact to the local and regional air quality. Overall, there are no significant impacts to air quality from either alternative and mitigations are not required.

Physical Resources (EA § 4.2.6, pages 4-29 to 4-33): The addition of impervious cover (125 percent) would result in short-term construction-related soil erosion on site and long-term, permanent loss of vegetation and potential for soil erosion down-gradient of paved areas. Best management practices (BMPs) would be implemented to minimize both short- and long-term erosion impacts. Because the topography at the Preferred Alternative is relatively flat, there is a very low to moderately low capacity for soil erosion to be transmitted to storm water, nor would prime farmland soils be impacted since none were identified.

Impacts from soil erosion as a result of Alternative 1 would be similar to those described under the Preferred Alternative, except that under Alternative 1, there would be a 34 percent increase in impervious cover. Since Alternative 1 has a large area of highly erodible soils, BMPs chosen to reduce erosion would be optimally designed to reduce impacts. The topography would undergo major alterations as a result of construction related site grading. The intermittent stream and storm water detention pond at Alternative 1 would be removed and reconfigured.

There would be short term impacts to physical resources from both alternatives; however, no long term impacts would be expected once C&D activities are completed and landscaping/pavement is in place. Drainage system BMPs would be installed to prevent soil loss and minimize sediment runoff at the construction site during storm events. These could include

preservation of existing vegetation to the extent practical, management/control of storm water run-on and management of disturbed soil areas. Any topsoil disturbed would be temporarily stockpiled for reuse on site where feasible. There would be no significant, long-term impacts to physical resources from KC-46A operations.

Water Resources (EA § 4.2.7, pages 4-33 to 4-41): There would be less than significant negative impacts to water quality under both the Preferred Alternative and Alternative 1. Surface water leaves the Preferred Alternative at the northern edge and drains into Tinker AFB's engineered marshland. This marshland serves as a filter before flowing into Beaver Pond, an Air Force designated nature preserve. Surface water from Alternative 1 discharges into several retention/detention features within Tinker AFB prior to final discharge into Crutcho Creek.

Implementation of the both alternatives would result in increased storm water generation. Both sites would require implementation of retention/detention features in order to manage the additional storm water discharge. Discharge from the detention basin(s) would be equal to or less than the existing release rate into the existing surface water. Several potential detention area(s) have been identified and would be selected during design. A Storm Water Pollution Prevention Plan would be implemented for both alternatives in order to minimize the amount of sediment released to surface water from C&D activities. In addition, existing Tinker AFB National Pollutant Discharge Elimination System permit, general permits (multi-sector, storm water discharges & Phase II small municipal discharges) would be obtained or amended, as necessary. Resulting impacts to surface water as a result of the both alternatives would be less than significant.

Floodplains do not exist within the Preferred Alternative; however, four non-jurisdictional wetlands were observed. Additionally, the Greenway wetland is located approximately one-mile downstream of the Preferred Alternative. While this wetland would not be directly impacted, increased storm water and sediment runoff from C&D activities may indirectly affect wetland quality. Best management practices would be put in place to mitigate potential negative impacts in regard to surface water. Approximately 40 acres of Alternative 1 are located within the 100-year floodplain. Based on the USACE 2013 Hydrology and Hydraulic Report, the 100-year runoff volume would increase by 9.6 acre-feet and steps would be taken to offset the additional volume. The greatest peak discharge is expected to be 1,199 cubic feet per second and would occur along East Crutcho Creek near South Air Depot Blvd. Approximately 70 acre-feet of storage would be needed as well as elevating the land in order to off-set impacts to the floodplain. This would be identified during design and require a permit to construct. Approximately 3 acres of jurisdictional wetland, an intermittent, jurisdictional stream as well as a small portion of non-jurisdictional stream (0.05 miles) are found within Alternative 1. Development of this site would result in a permanent loss of 3.15 acres of jurisdictional wetlands and 0.67 miles of jurisdictional waters. A Section 401/404 permit under the Clean Water Act would be required from the USACE prior to construction. The permit would state in detail the mitigations required to offset this loss. .

Biological Resources (EA § 4.2.8, pages 4-41 to 4-55): There would be minor, long-term loss of habitat under the Preferred Alternative. However, there would be no overall change to species diversity at the site. Less than an acre of forested habitat would be lost and approximately 80

acres of non-native grasses would be developed. Nine acres of the Tinker AFB Green Infrastructure (GI), an interconnected network of waterways, wetlands, woodlands, grasslands and other natural areas of base wide significance, are primarily located along the northern and western boundaries of the site. Under the Preferred Alternative, a 300-foot corridor along the western boundary of the site would remain connected to the GI near the Draper Lake area by way of natural buffers. The majority of Alternative 1 would be developed to accommodate the new mission resulting in a permanent loss of approximately 15 acres of forested habitat. The loss would result in 40% decrease in habitat diversity available on Tinker AFB. In order to offset this loss, Tinker AFB would create approximately 50 acres of grassland habitat from a former military housing area currently being demolished.

Impacts to migratory bird species from the Preferred Alternative and Alternative 1 are anticipated to be short-term and minor. Migratory birds would be discouraged from both sites with routine mowing, maintenance and woody vegetation removal prior to the breeding season (April-July). Should C&D activities occur during the breeding season, modification of the existing Tinker Depredation Permit would be required to authorize hazing of migratory birds and discourage nesting within the project area. As part of this action Tinker AFB would also conduct a pre-construction nest survey to avoid damaging birds, eggs or nests. If active breeding birds/nests are identified during this survey, a relocation permit would be required from the U.S. Fish and Wildlife Service prior to clearing/construction activities. Impacts to fish within the Crutcho Creek tributary would be minimized through use of soil erosion BMPs. There are no known federally listed threatened and endangered species within either project site. There would be potential impacts to the Texas horned lizard, a state species of concern. These impacts would be short-term as a result of construction activities and would not be expected to cause a major increase or decrease in suitable habitat for this species or result in a direct take due to pre-construction species specific surveys, catch and relocation efforts.

Other Identified Contamination (EA §§ 3.2.11.2.3 and 4.2.11.4, pages 3-71 to 3-73, and page 4-61): During the Phase II Environmental Baseline Survey conducted in October and November 2013 at the BNSF Rail yard, two groundwater samples detected cadmium concentrations above the Maximum Contaminant Level (MCL) established by the U.S. Environmental Protection Agency and one shallow soil sample contained arsenic. Because all the groundwater results for cadmium were within the upper tolerance limits for background levels of metals, no further investigation was performed. The reported concentration for arsenic was 24 mg/kg, which slightly exceeded the maximum background arsenic concentration of 21 mg/kg for Central Oklahoma. Because the value of 24 mg/kg is statistically similar to 21 mg/kg, it was considered within background levels and no further investigation was required. Through the Installation Development Plan, Tinker AFB will prohibit the use of groundwater at BNSF to prevent exposure to potential contamination. Additionally, a storm water detention basin will be constructed where arsenic concentrations have been reported in the soil to treat runoff and the soils will be sampled to properly characterize the waste for off-site disposal. Therefore, impacts from the Preferred Alternative would be less than significant. No contamination was identified at Alternative 1.

Mitigations

As the proponent for KC-46A depot maintenance mission, 76 AMXG is responsible for ensuring the mitigations identified above and in the EA are in place prior to taking any specific action. The 72 ABW/CE will oversee and verify mitigations are fully funded by the proponent and are in place and being carried out, as identified in this FONSI and the Mitigation and Monitoring Plan (MMP). The MMP will be developed subsequent to this FONSI and will include points of contact for oversight and completion of the mitigation as well as the anticipated timing for mitigation completion. It is expected the mitigation monitoring will generally consist of on-the-ground inspections and any subsequent actions necessary to address deficiencies discovered during the inspections. The EA refers to the use of BMPs. For this FONSI and in compliance with Air Force regulation, BMPs will be carried forward and monitored in the MMP.

Public Review

A public notice was placed in the Daily Oklahoman and the Tinker Take Off on 31 January 2014 announcing the availability of the Draft EA and Draft FONSI/FONPA for public review and comment. The documents were made available for review on the internet at <http://www.tinker.af.mil/library/environment/index.asp> from 31 January to 3 March 2014. The Air Force received comments from five public agencies during and after the review period. The Oklahoma State Historic Preservation Office (SHPO) requested additional details on two potentially eligible sites identified on the Preferred Alternative site. This information was provided to the SHPO and they concurred Sites 34OK146 and 34OK228 were in-eligible for inclusion in the National Register of Historic Places. The Oklahoma Department of Environmental Quality provided notice the Preferred Alternative was adjacent to a classified brownfield location. The certificate of completion requires the soils be tested for contamination before excavation and disposed of properly. The Oklahoma City Audubon Society offered suggestions for the preferred vegetation types to be used when establishing the new green infrastructure and the information was provided to Tinker AFB natural resources department for their records. The Oklahoma City Department of Public Works reminded the Air Force to comply with all regulatory floodplain requirements and floodplain development ordinance. They also noted both alternatives may require permits for construction in the floodplain.

Tribal consultation letters were mailed to the federally recognized tribes on 17 September 2013. The Air Force did not receive any responses to the consultation letters. Additional attempts to contract tribal representatives were made from 2-8 May 2014 by the Tinker AFB cultural resources staff. Appendix A includes a record of these calls and any responses from the tribes.

FINDING OF NO PRACTICABLE ALTERNATIVE

The Preferred Alternative is the Air Force's first choice since it does not impact floodplains. However, there would be a permanent loss of 0.60 acres of non-jurisdictional wetlands. These impacts would be minimized through mitigation banking or other compensatory mitigation. Due to the low habitat quality, limited acreage and mitigation measures, impacts to wetlands would be considered less than significant. Currently the Air Force does not own this property and its use is contingent upon purchase.

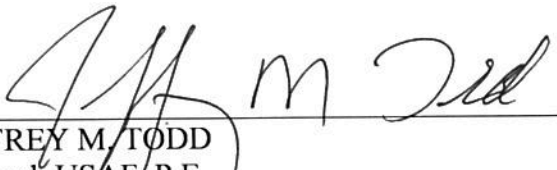
If the Preferred Alternative is unable to be secured by the Air Force, then Alternative 1 will become the bed down site for the KC-46A. Approximately 40 acres of the 100-year floodplain will be impacted. As a result, a portion of the floodplain would be filled and developed, resulting in the elimination of a segment of East Crutcho Creek. To minimize impacts, floodplains mitigation measures include establishing an off-site location for flood storage and diverting storm water flow through use of conveyance features. Development of Alternative 1 will also result in a permanent loss of 3.15 acres of jurisdictional wetlands and 0.67 miles of jurisdictional waters. A Section 401/404 permit under the Clean Water Act would be required from the USACE and the Air Force would be required to construct wetlands in significantly greater acreage than those lost, in order to mitigate wetland impacts.

Pursuant to Executive Orders 11988 and 11990, and considering all supporting information, I find there is no practicable alternative to constructing the KC-46A depot maintenance facility at a site which will impact either floodplains and/or wetlands, as described in the attached EA. This finding fulfills both the requirements of the referenced Executive Orders and the EIAP regulation, 32 CFR § 989.14 for a Finding of No Practicable Alternative.

FINDING OF NO SIGNIFICANT IMPACT

Based upon my review of the facts and analyses contained in the attached EA, I find the Proposed Action to bed down the KC-46A depot maintenance activities at Tinker AFB will not have a significant impact on the natural or human environment; therefore, an environmental impact statement is not required. This analysis fulfills the requirements of NEPA, the President's Council on Environmental Quality 40 C.F.R. §§ 1500-1508 and the Air Force EIAP regulations 32 C.F.R. § 989.

A MMP will be developed and implemented prior to the start of C&D activities, but no later than 90 days from the date of this FONSI.


JEFFREY M. TODD
Colonel, USAF, P.E.
Command Civil Engineer
Communications, Installations and Mission Support

25 JUL 14
Date